



Case Study

King Abdullah University of Science and Technology New Energy Oasis (NEO)



Solar Frontier's CIS modules are ideal for the high temperatures that are common to Jeddah, on the west coast of Saudi Arabia.

Site Overview

Location	Jeddah, Saudi Arabia
Coordinates	22.3° N, 31.2° E
Average global irradiance	2,168 kWh/m ² /yr
Average temperature	28.4 °C • 83.1 °F
Average precipitation	62.5 mm • 2.4 in/yr

Installation Overview

Date onstream	May 2009
System capacity	10 kWp
Panel type	SF75-EX-B (75 W)
Number of installed panels	128
Tilt angle, orientation	Tilt 20°, South 0°
Output Jan. - Jun. 2010	6,800 kWh (AC)
Average CO₂ reduction	5,004 kg • 11,031 lbs
Inverter	Delta 3600W

"We are pleased with our results thus far. CIS modules make a great choice for the intense heat and light of arid regions like Saudi Arabia."



Raed Ahmad Bkayrat, PhD
 Manager
 Industry Collaboration (KICP, CIAP)
 Economic Development
 KAUST

The King Abdullah University of Science and Technology (KAUST) was inaugurated by its namesake, King Abdullah, in September 2009. Situated near Jeddah, Saudi Arabia, the 36-square kilometer campus holds cutting-edge laboratory and research facilities dedicated to three main areas of research: sustainable agriculture, renewable energy, water and the environment.

KAUST's establishment follows the Saudi government's decision to diversify its economy through the development of renewable energies, especially solar. Saudi Aramco, the world's largest oil company and the contractor of KAUST, was selected as the technology and development partner to pursue this vision.

Solar Frontier, in support of the newly established NEO site at KAUST, provided the 10kW photovoltaic system for testing and evaluation purposes. The high ambient heat tolerance of thin-film CIS modules make them ideal for the intense sunlight of Jeddah and the west coast of Saudi Arabia. Data gathered from the system will be leveraged to support further expansion of solar projects throughout Saudi Arabia.

About Solar Frontier

Solar Frontier is committed to creating the world's most ecological, economical solar energy solutions, on the world's largest scale. Our proprietary CIS technology (denoting key ingredients copper, indium, and selenium) has the best overall potential to set the world's most enduring standard for solar energy. For more information visit www.solar-frontier.com